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Remarks

The attached response is being submitted under 37 CFR 1.34(a). The undersigned has in hand a Power of Attorney that is in the process of being forwarded to the USPTO under separate cover.

The drawings amendments requested by the Examiner have been proposed.

The indication of allowable subject matter is noted with appreciation.

In one of its aspects, the invention addresses the problem of the orderly tearing down of connections when a signalling connection with which they are associated fails. This may be due, for example, to either failure of the physical link carrying the signalling connection or port failure, for example.

Jamoussi teaches a method of changing bandwidth loading in an inverse multiplex system, wherein elastic and non-elastic call connections are released to free up bandwidth in the event of failure of the physical links. As noted by the Examiner with regard to former claim 7, Janoussi does not disclose that this procedure is carried out pursuant to failure of a signalling connection that is associated with a number of connections. Claim 1 as amended is not therefore anticipated under 35 USC 102(e). With regard to obviousness under 35 USC 103(a), it is well established that

“there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach all the claim limitations”. See MPEP 2143.
(Emphasis added)

The prior art clearly does not teach all the claim limitations contrary to the above direction. The prior art does not teach a method wherein channels are released pursuant to a failure in an associated signalling channel in the manner defined in the claim. It is not permissible for the Examiner to speculate what might be obvious to one skilled in the art without supporting evidence. If the Examiner is relying on personal knowledge, the applicants respectfully challenge such knowledge and put the Examiner to the proof thereof. No-one previously had addressed the problem of tearing down a group of connections in the event of failure of the associated signalling connection, and it is

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certainly by no means obvious that a technique for controlling bandwidth loading in an inverse multiplexed system would be applicable to this problem.

This rejection is therefore respectfully traversed on the basis that the Examiner has failed to show a teaching of all the claim limitations in the prior art.

Claim 2 is additionally patentable over claim 1 in that Jamoussi does not teach the step of compiling an ordered list of connections to be released upon detection of the signalling failure. Contrary to Jamoussi, the present invention compiles the list of connections associated with the signalling connection after the failure has occurred and then releases these connections in the order determined by the priority indicators. By contrast, Jamoussi creates a connection table in advance with linked lists (see col. 10, lines 15 - 20), and in the event of a trunk failure progressively eliminates connections until the remaining links are within acceptable levels. There is no teaching of compiling an ordered list of connections that are affected by the failure when the failure occurs, and then using this list to sequentially shut down the connections. The prior art clearly does not show this feature, either inherently or explicitly. On the contrary, Jamoussi teaches progressively eliminating links one by one according to the algorithm described in column 11 until the bandwidth loading requirements have been met. This is quite different from assembling a list of connections that are definitely to be released and then releasing them one by one.

Similar arguments apply to claims 23 and 26 as amended.

With regard to claim 12, the rejection under 35 USC 102(e) is respectfully traversed because contrary to the Examiner's position, Jamoussi does not disclose the steps (b) and (c) as set forth. In accordance with claim 12, upon detection of a capacity of a logical trunk, the method first identifies a group of connections that are to be released, and then following this selection, releasing the connection of the group.

Jamoussi does not teach the selection of a group of connections to be released following a reduction in capacity of a logical trunk, and then subsequently releasing members of this selected group from the highest to lowest priority. In Jamoussi, when an IMA physical trunk is lost, the processor looks at the connection records (see col. 11) and applies the algorithm shown in Figure 1 to the records one by one until adequate bandwidth reduction is achieved. See, in particular, lines 13 - 15, col. 11.

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"If, on the other hand, the new pool available bandwidth is not less than 0, the processor is directed to continue processing at block 140 where the next least desirable connection is released as described above."

Clearly, Jamoussi does not teach selecting whole group upon detection of the rate reduction, and then sequentially releasing members of this selected group.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently, described in a single prior art reference."
Verdegaard Bros. v. Union Oil Co. of California, 2 USPQ2d 1051.

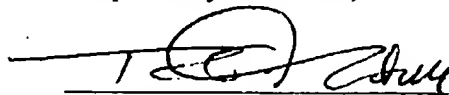
Although the Examiner did not reject claim 12 under 35 USC 103(a), similar arguments apply as set forth above. In order to establish a *prima facie* case under 35 USC 103(a), the Examiner has to show each element of the rejected claim in the prior art. The Examiner has clearly failed to show the above features in any prior art document. Similar arguments apply to independent claim 34.

With regard to claim 13, Jamoussi does not disclose the step of selecting the connections for release and then compiling an order list of the selected connections for the reasons discussed above. With regard to claim 14, Jamoussi does not disclose storing this list of connections selected for release into a table. Similar arguments apply to claims 37 and 38.

In summary, it is respectfully submitted that the prior art does not show the elements recited in the independent claims either alone or in combination for the reasons set forth above.

It is believed that this application is in condition for allowance. Accordingly, reconsideration and allowance are respectfully requested.

Respectfully submitted,



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Marked up version showing Amendments

1(Amended). A method for the ordered release of connections from a network entity in a signaling communications network, the connections being routed across the communications network along respective connection paths established therefor, the connection paths each traversing the network entity via network entity interfaces provided with the network entity through which said connections are routed, the method comprising the steps of:

- (a) associating a priority indicator with each of the connections, the priority indicator being selected from a priority hierarchy comprised of a plurality of priority levels which varies from highest priority to lowest priority; and
- (b) upon detection of a signaling connection which is ~~disruptive of communications~~ overassociated with a number of connections, releasing every connection of said number of connections which said network outage has disrupted, wherein said release takes place at the network entity in a sequence which corresponds to the priority hierarchy from the connection associated with the highest priority level to the connection associated with the lowest priority level.

2(Amended). The method according to Claim 1, wherein the step of releasing the connections comprises the steps of:
compiling, upon detection of said signaling connection, an ordered release list comprising every connection of said number of connections;
releasing the connections in the ordered release list in a sequence which corresponds to the priority hierarchy from the connection associated with the highest priority level to the connection associated with the lowest priority level.

7(Amended). The method according to Claim 6, wherein the network outage is the failure of a signalling link corresponding to said number of connections, said signaling link being is for communicating administrative information concerning operation of said number of connections.

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9(Amended). The method according to ~~any one of Claims 7 and 8~~, wherein the signaling communications network is an ATM communications network.

23(Amended). An apparatus for the ordered release of connections in a signaling communications network, the connections being routed across a network entity in the communications network along respective connection paths therefor, the connection paths each traversing the network entity via network entity interfaces provided with the network entity and through which said connections are routed, the apparatus comprising:

(a) means for storing a priority indicator associated with each of the connections, the priority indicator being selected from a priority hierarchy which varies from highest priority to lowest priority; and

(b) means for directing the release of every connection of a number of connections in ~~the event that a network outage which is disruptive of communications over that failure of~~ a signaling connection associated with said number of connections is indicated to the apparatus, said release of said number of connections being directed in a sequence corresponding to the priority hierarchy from the connection associated in the storing means with the highest priority level to the connection associated in the storing means with the lowest priority level.

26(Amended). The apparatus according to Claim 25, wherein the directing means comprises means for compiling an ordered release list in the memory upon indication of ~~the network outage~~ said failure of said signaling connection to the apparatus, the compiling means enumerating in the ordered release list every connection of said number of connections in order from the connection associated with the highest priority level to the connection associated with the lowest priority level.

29(Amended). The apparatus according to Claim 28, wherein ~~the network outage is a failure of a signalling link corresponding to said number of connections, said signalling link being is~~ for communicating administrative information concerning operation of said number of connections.

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30. ~~The apparatus according to Claim 28, wherein the network outage is the failure of an access link carrying said number of connections.~~

31(Amended). The apparatus according to any one of Claims 29 ~~and 30~~, wherein the signalling communications network is an ATM communications network.

32(Amended). The apparatus according to Claim ~~31~~26, wherein each connection is associated in said look-up table with a traffic rate, and the compiling means lists connections associated with a common level of priority in the release list in a sequence corresponding to the traffic rates of the connections.